## REMARKS

Reconsideration and allowance of the present application in view of the following remarks is respectfully requested.

Currently, claims 1-28 are pending in the present application including independent claims 1, 13 and 24. The pending claims are generally directed to a filtration device.

In the Office Action of June 29, 2004, claims 1, 2, 5-8, 11-14, 17-20, 22-24 and 26-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Patrick, et al. (U.S. Patent No. 5,762,797) in view of May, et al. (U.S. Patent No. 3,209,916).

Claims 9, 10, 21 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Patrick, et al. in view of May, et al. and further in view of Hiasa, et al. (U.S. Patent No. 5,607,595).

Claims 3, 4 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Patrick, et al., May, et al., Hiasa, et al. and further in view of Pall, et al. (U.S. Patent No. 4,523,995).

When discussing the §103(a) rejection to claim 1 over Patrick, et al. in view of May, et al., the Office Action stated that Patrick, et al. disclosed the claimed invention with the exception of the recited spirally wound layers. The Office Action also stated that May, et al. disclosed constructing plural concentric filtration layers in the recited manner and that it would have been obvious to one of ordinary skill in the art to construct the concentric filtration layers of Patrick, et al. in the manner suggested by May, et al. in order to ensure the filtration layers

did not separate from one another as set forth on Col. 2, ll. 5-7 of May, et al. Applicants respectfully submit that one of ordinary skill in the art would not have found it obvious to combine Patrick, et al. and May, et al. in the manner suggested in the Office Action, and that even if such a combination were made the resulting device would still not disclose the filtration device set forth in claim 1 of Applicants' application.

Applicants admit that the filter of May, et al. was shown as being made from a plurality of concentric layers. However, May, et al. does not disclose a filter medium that is spirally wound with generally complete overlap and contact between adjacent layers such that edges of the layers are generally aligned in a common plane as called for in the filtration device of claim 1. Col. 2, ll. 5-7 of May, et al. discusses a layer of cotton gauze 16 that has adhesive located thereon in order to hold the innermost layer 14 together. The cotton gauze 16 is described as being wrapped in a spiral around the innermost layer 14. As shown in Figures 1 and 2 of May, et al., the cotton gauze 16 is but a single layer, and is not a filter media that is spirally wound with generally complete overlap and contact between adjacent layers as called for in claim 1 of Applicants' application.

Another layer of cotton gauze 19 present in the filter of May, et al. is disclosed as being spirally wrapped around a second layer of fibers 18 (see Col. 2, ll. 31-34 of May, et al.). As such, the cotton gauze layers 16 and 19 are not in contact with one another but are instead separated by fiber layer 18. As previously mentioned, the filter medium of claim 1 of Applicants' application is

spirally wound with generally complete overlap and contact between adjacent layers. This structure is not disclosed in the filter of May, et al.

Further, claim 1 calls for the filter media to be spirally wound. The cotton gauze 16 and 19 of May, et al. is not filter media but is instead simply wrapping that is used along with a suitable adhesive to hold the layers 14 and 18 together.

Applicants respectfully submit that it would not have been obvious for one having ordinary skill in the art to modify Patrick, et al. upon viewing May, et al. in order to arrive at the structure called for in claim 1 of Applicants' application. Patrick, et al. is directed towards an antimicrobial filter cartridge that employs a yarn or non-woven material treated with an antimicrobial agent in order to kill microorganisms within water flowing through the filter cartridge (see Col 2, ll. 12-13 of Patrick, et al.). The yarn is wrapped around a membrane layer of the filter cartridge so that there are no spaces between the turns of the yarn thus eliminating any voids between the yarn and the membrane (see Col. 2, ll. 13-17 of Patrick, et al.). The tight wrapping of the antimicrobial yarn is an essential feature of the invention of Patrick, et al. and is stated as creating minimal void spaces between the yarn and the membrane to ensure sufficient contact between the contaminants and the antimicrobial treated yarn to treat the contaminants without requiring long contact times between the fluid flow and the filter cartridge (see Col. 2, ll. 48-54 of Patrick, et al.).

As such, Patrick et al. is specifically directed towards a filter cartridge that employs an antimicrobial yarn. Reconfiguring Patrick, et al. in view of May, et al. would cause for the antimicrobial yarn to be replaced with the layer of cotton

gauze disclosed in May, et al. Such a modification would not have been obvious to one having ordinary skill in the art because it would completely remove the advantageous feature taught and claimed in Patrick, et al.

Additionally, it would not have been obvious for one to reconfigure the antimicrobial yarn of Patrick, et al., upon viewing May, et al., to arrive at the structure set forth in claim 1 of Applicants' application. The antimicrobial yarn is of a relatively small and limited diameter, and as such it would not have been possible for one having ordinary skill in the art to reconfigure the antimicrobial yarn so that it is spirally wound with generally complete overlap and contact between adjacent layers as set forth in claim 1 of Applicants' application. Due to the limited diameter of the yarn, it is necessary to wrap the yarn a number of times along the length of the membrane in Patrick, et al., in order to arrive at a single layer of yarn.

Applicants note that Patrick, et al. discloses a less favored, alternative embodiment that includes a non-woven fibrous mat or web 25 wrapped around the microporous membrane and core (see Col. 5, ll. 29-37 of Patrick, et al.). However, the fibrous mat or web 25 in this embodiment of Patrick, et al. is but a single layer in the antimicrobial filter (see element 25 in Figure 4 of Patrick, et al.). The fibrous mat or web 25 may be made in a thickness sufficient to provide the filter cartridge with sufficient thickness to fit snugly within the filter housing of a fluid filtration system (see Col. 5, ll. 38-43 of Patrick, et al.). Therefore, this embodiment of Patrick, et al. discloses only a single layer.

As previously mentioned, the cotton gauze 16 and 19 in May, et al. are not filter media and are single separate layers from one another. In order to establish a *prima facie* case of obviousness, all of the claim features must be taught or suggested by the prior art. In our instance, claim 1 calls for a first filter media to be spirally wound with generally complete overlap and contact between adjacent layers. This element is not disclosed in either Patrick, et al., May, et al., or the combination of Patrick, et al. in view of May, et al. The combination of references does not disclose a filter media that is spirally wound with generally complete overlap and contact between adjacent layers, and Applicants respectfully submit that claim 1 defines over the combination of Patrick, et al. in view of May, et al. for at least the reasons discussed herein and is in condition for allowance.

The other independent claims in the present application also call for structure similar to that presently discussed with respect to claim 1. As such, Applicants respectfully traverse the §103(a) rejections to claims 13 and 24 and submit that these claims define over the combination of Patrick, et al. in view of May, et al. for essentially the same reasons as discussed above with respect to claim 1 and are in condition for allowance.

As stated, the Office Action rejected all of the dependent claims of the present application as being unpatentable under 35 U.S.C. §103. These claims depend either directly or indirectly from independent claims 1, 13 and 24 and recite the present invention in varying scope. The dependent claims are distinguishable from the cited references not only because of the patentability of

the independent claims but also because of the combination of the subject matter of each of the dependent claims with their independent claim which makes each claim further distinguishable, and which is not taught or suggested by the cited references, singly or in combination.

Applicants respectfully submit that all claims are allowable and that the application is in condition for allowance. Favorable action thereon is respectfully requested. The Examiner is encouraged to contact the undersigned at the Examiner's convenience in order to resolve any remaining issues.

Respectfully submitted,

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